

Appl. No.
Filed

: [REDACTED] CT/BE99/00089
: July 9, 1999

type virus when the [mutant form was] mutant TGB-3 is expressed from a replicon[.]; and

- recovering said [specifically genetically modified] mutant TGB-3 viral sequence.

2. (Amended) The [Method] method according to Claim 1, wherein the TGB-3 wild type viral sequence is the BNYVV P15 sequence.

3. (Amended) [Genetically] A genetically modified TGB-3 viral sequence obtained by the method according to Claim 1| or 2|.

4. (Amended) [Genetically] The genetically modified TGB-3 viral sequence according to Claim 3, [being] selected from the group consisting of [the following sequences]:

[SEQ ID NO 1:

ATGGTGCTTGTGGTTGCAGTAGCTTTATCTAATATTGTATTGTACATAGTTGCCGTTGT 60
M V L V V A V A L S N I V L Y I V A G C
GTTGTTGTCAGTATGTTGTACTCACCGTTTTTCAGCAACGATGTTAAAGCGTCCAGCTAT 120
V V V S M L Y S P F F S N D V K A S S Y
GCGGGAGCAATTTTAAAGGGGAGCGGCTGTATCATGGACAGGAATTCGTTTGCTCAATTT 180
A G A I F K G S G C I M D R N S F A Q F
GGGAGTTGCGATATTCCAAAGCATGTAGCCGAGTCCATCACTAAGGTTGCCACCAAAGAG 240
G S C D I P K H V A E S I T K V A T K E
CACGATGTTGACATAATGGTAAAAAGGGGTGAAGTGACCGTTCGTGTTGTGACTCTCACC 300
H D V D I M V K R G E V T V R V V T L T
GAAACTATTTTATAATATTATCTAGATTGTTTGGTTTGGCGGTGTTTTTGTTCATGATA 360
E T I F I I L S R L F G L A V F L F M I
TGTTTAATGTCTATAGTTTGGTTTTGGTATCATAGATAA 399

Appl. No.

: [REDACTED] CT/BE99/00089

Filed

: July 9, 1999

C L M S I V W F W Y H R *

SEQ ID NO 2:

ATGGTGCTTGTGGTTAAAGTAGATTTATCTAATATTGTATTGTACATAGTTGCCGGTTGT 60
M V L V V K V D L S N I V L Y I V A G C
GTTGTTGTCAGTATGTTGTACTCACCGTTTTTCAGCAACGATGTTAAAGCGTCCAGCTAT 120
V V V S M L Y S P F F S N D V K A S S Y
GCGGGAGCAATTTTTAAGGGGAGCGGCTGTATCATGGCGGAATTCGTTTGCTCAATTT 180
A G A I F K G S G C I M A A N S F A Q F
GGGAGTTGCGATATTCCAAAGCATGTAGCCGAGTCCATCACTAAGGTTGCCACCAAAGAG 240
G S C D I P K H V A E S I T K V A T K E
CACGATGTTGACATAATGGTAAAAAGGGGTGAAGTGACCGTTCGTGTTGTGACTCTCACC 300
H D V D I M V K R G E V T V R V V T L T
GAAACTATTTTTATAATATTATCTAGATTGTTTGGTTTGGCGGTGTTTTTGTTTCATGATA 360
E T I F I I L S R L F G L A V F L F M I
TGTTTAATGTCTATAGTTTGGTTTTGGTATCATAGATAA 399
C L M S I V W F W Y H R *

SEQ ID NO 3:

ATGGTGCTTGTGGTTAAAGTAGATTTATCTAATATTGTATTGTACATAGTTGCCGGTTGT 60
M V L V V K V D L S N I V L Y I V A G C
GTTGTTGTCAGTATGTTGTACTCACCGTTTTTCAGCAACGATGTTAAAGCGTCCAGCTAT 120
V V V S M L Y S P F F S N D V K A S S Y
GCGGGAGCAATTTTTAAGGGGAGCGGCTGTATCATGGACAGGAATTCGTTTGCTCAATTT 180
A G A I F K G S G C I M D R N S F A Q F
GGGAGTTGCGATATTCCAAAGCATGTAGCCGAGTCCATCACTAAGGTTGCCACCAAAGAG 240

Appl. No. : [REDACTED] CT/BE99/00089

Filed : July 9, 1999

G S C D I P K H V A E S I T K V A T K E
CACGATGTTGACATAATGGTAAAAAGGGGTGAAGTGACCGTTCGTGTTGTGACTCTCACC 300
H D V D I M V K R G E V T V R V V T L T
GAAACTATTTTTATAATATTATCTAGATTGTTTGGTTTGGATGATTTTTTGTTCATGATA 360
E T I F I I L S R L F G L D D F L F M I
TGTTTAATGTCTATAGTTTGGTTTGGTATCATAGATAA 399
C L M S I V W F W Y H R *] SEQ ID NOS:1, 3, and 5.

5. (Amended) [Vector] A vector comprising the genetically modified TGB-3 viral sequence according to [the] Claim 3 [or 4, possibly linked to one or more regulatory sequence(s) capable of being active into a plant or a plant cell].

6. (Amended) [Method] A method for inducing resistance [into] to a virus in a plant or a plant cell [to a virus] comprising [a TGB-3 sequence, comprising the following steps]:

- preparing a nucleic acid construct comprising a genetically modified TGB-3 viral sequence according to Claim [4 or 5, being] 3 operably linked to one or more regulatory sequence(s) [capable of being] active [into] in a plant or a plant cell, and
- transforming a plant cell with said nucleic acid construct[, and possibly
- **regenerating a transgenic plant from the transformed plant cell].**

7. (Amended) [Method] The method according to Claim 6, [characterised in that] wherein the virus is selected from the group consisting of the apple stem pitting virus, the blueberry scorch virus, the potato virus M, the white clover mosaic virus, the *Cymbidium* mosaic virus, the barley stripe mosaic virus, the potato mop top virus, the peanut clump virus, the beet soil-borne virus [or] and the BNYVV virus.

8. (Amended) [Method]The method according to Claim 6 **[or 7, characterised in that]**wherein the plant cell is a stomatal cell.
9. (Amended) [Method]The method according to **[any one of the Claims 6 to 8, characterised in that]**Claim 6 wherein the plant is selected from the group consisting of apple, blueberry, potato, clover, orchid, barley, peanut **[or]**and sugar beet.
10. (Amended) [Method]The method according to **[any one of the Claims 6 to 9, characterized in that]**Claim 6, wherein the regulatory sequence comprises a promoter sequence or a terminator sequence active in a plant.
11. (Amended) [Method]The method according to Claim 10, **[characterised in that]**wherein the promoter sequence is a constitutive or a foreigner promoter sequence.
12. (Amended) [Method]The method according to Claim 10, **[characterised in that]**wherein the promoter sequence is selected from the group consisting of the 35S Cauliflower Mosaic Virus promoter, [and/or] the polyubiquitin Arabidopsis thaliana promoter, and both promoters.
13. (Amended) [Method]The method according to **[any one of the Claims 10 to 12, characterized in that]**Claim 10, wherein the promoter sequence is a promoter **[which is capable of being]** active **[mainly into]**in the root tissue of plants **[such as the par promoter of the haemoglobin gene from Perosponia andersonii].**
14. (Amended) [Transgenic]A transgenic plant or transgenic plant cell resistant to a virus **[and]** comprising a nucleic acid construct having a genetically modified TGB-3 viral sequence according to Claim 4 **[or 5, being]** operably linked to one or more regulatory sequence(s) active **[into]**in a plant or a plant cell.

Appl. No. : CT/BE99/00089
Filed : July 9, 1999

15. (Amended) [Transgenic] A transgenic plant or transgenic plant cell according to Claim 14, **[characterised in that]** wherein the virus is selected from the group consisting of the apple stem pitting virus, the blueberry scorch virus, the potato virus M, the white clover mosaic virus, the *Cymbidium* mosaic virus, the potato virus X, the barley stripe mosaic virus, the potato mop top virus, the peanut clump virus, the beet soil-borne virus and the BNYVV virus.

16. (Amended) [Transgenic] The transgenic plant or transgenic plant cell according to Claim 14 **[or 15, being a plant or a plant cell]** selected from the group consisting of apple, blueberry, potato, clover, orchid, barley, peanut **[or]** and sugar beet **[plant or plant cell]**.

17. (Amended) [Transgenic] The transgenic plant or transgenic plant cell according to **[any one of the Claims 14 to 16, characterised in that]** Claim 14, wherein the regulatory sequence comprises a promoter sequence and a terminator sequence **[capable of being]** active **[into]** in a plant.

18. (Amended) [Transgenic] The transgenic plant or transgenic plant cell according to **[any one of the Claims 14 to 17, characterised in that]** Claim 14, wherein the regulatory sequence(s) comprise a promoter sequence which is a constitutive or a **[foreigner]** foreign vegetal promoter sequence.

19. (Amended) [Transgenic] The transgenic plant or transgenic plant cell according to Claim 18, **[characterised in that]** wherein the promoter sequence is selected from the group consisting of the 35S Cauliflower Mosaic Virus promoter, **[and/or]** the polyubiquitin *Arabidopsis thaliana* promoter, and both.

20. (Amended) [Transgenic] The transgenic plant or transgenic plant cell according to Claim 18 **[or 19, characterised in that]** wherein the promoter sequence is **[a**

Appl. No.

CT/BE99/00089

Filed

July 9, 1999

promoter which is mainly] active in root tissues [such as the par promoter of the haemoglobin gene from *Perosponia andersonii*].

21. (Amended) [Transgenic]The transgenic plant tissue of Claim 14 wherein said tissue is selected from the group consisting of fruit, stem, root, tuber, and seed [of a plant according to any one of the Claims 14 to 20].

22. (Amended) [Reproducible]A reproducible structure obtained from a transgenic plant according to [any one of the Claims 14 to 21]Claim 14.

Please add the following Claims

23. The vector of Claim 5 operably linked to one or more regulatory sequence(s) active in a plant cell.

24. The method of Claim 5 further comprising regenerating a transgenic plant from the transformed plant cell.

25. The method of Claim 13, wherein said promoter active in the root tissue of plants is the par promoter of the haemoglobin gene from *Perosponia andersonii*.

26. The transgenic plant of Claim 16, wherein said promoter active in the root tissue of plants is the par promoter of the haemoglobin gene from *Perosponia andersonii*.

REMARKS

The specification and claims have been amended and an abstract added to conform with the rules of practice before the United States Patent and Trademark Office. Claims 23-26 have been added. Support for the added claims can be found in the claims as filed. No new matter has been added herewith. As a result of the amendment, Claims 1-26 are presented for prosecution.

Conclusion

Should there be any questions concerning the application, the Examiner is invited to contact the undersigned attorney at the telephone number appearing below.